VACAVILLE CALIFORNIA

VACA VALLEY RADIO CLUB

REPEATER REPEATER REPEATER REPEATER REPEATER REPEATER REPEATER REPEATER REPEATER

JANUARY 2003

Always looking for that quick, dirty or cheap way to get on a band… Six meters that is...

Six meters came to mind as I consider a vertical for the repeaters within the area… Take a look at this and see if It might help you.

1. get a 5 foot piece of 3/8 tubing or rod stock and tap it for 3/8-24
thread at the bottom 2 inches...

2. 1/4 wave = 234/f
= 234/50.125 = 4.668' = 4' 8" (approx)
-or-
= 234/52.525 = 4.455' = 4' 5.5" (approx)

3. Screw it into a el cheepo CB antenna mount of your particular flavor

Questions with Coax? Check out these sites...
http://www.belden.com/

http://www.qsl.net/kc6uut/coax.html

http://www.timesmicrowave.com/

http://www.timesmicrowave.com/cgi-bin/calculate

http://www.econ2way.com/catalog/public/recommended_cable.htm

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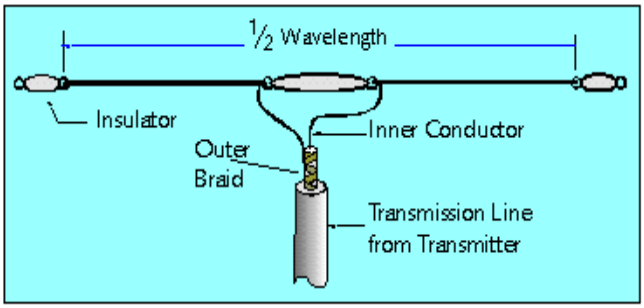
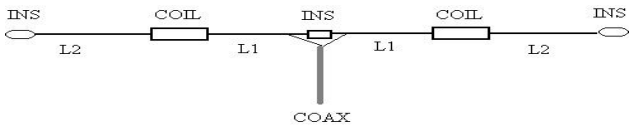


dipole antenna

Lets recheck our formula… 468/freq = 1/2 wavelength … Then I would add two feet to this length. This is done so you will have six (6) inches of wire at each end to wrap around the insulators. Once you have this extended length of wire cut it in half. This will give you both sides of the dipole.

Attach an end insulator to an end of each piece of wire. The other free ends will be attached to a centre connector which you can buy with a built in coaxial cable connecter, or make your own. This will look similar to the end connectors but you will have to find a way to secure the coax lead wire to the insulator. If you build your own when you attach the coax to the ends of the wires, insure that you solder and wrap the connections. One wire will go to the centre of the coax, while the other wire will go to the shielded braid of the coax. This will give you a perfect half wave dipole. You should also wrap the coax fitting of the commercially available centre insulator to keep water and other moisture out. Moisture will ruin the connections on any type of insulator and make the antenna less effective or at worst useless. The 80 meter version shorten, would be two loading coils add can consist of 104 turns of insulated wire, wound over 3.5 inches. Play with the diameter it will be a case for experimentation here.



Match the following items to a definitation…
Have fun . A couple of zingers… hi hi

1. Operating Power_____.
2. Power level_____.
3. Lead-in_____.
4. Coaxial line_____.
5. Ultor_____.
6. 3.1416_____.
7. Upper sideband_____.
8. Drift_____.
9. Antenna_____.
10. Boffle_____.

Some answers to choose from… Good luck

A. A picture-tube anode or element farthest from the cathode.

B. At any point in a transmission system, the difference between the measure of the steady-state power at that point, and the measure of an arbitrarily specified amount of power chosen as a reference.

C. The conductor that provides the path for rf energy between the antenna and the radio/television receiver or transmitter.

D. A transmission line in which one conductor completely surrounds the other, the two being coaxial and separated by a continuous solid dielectric or by dielectric spacers.

E. The Power actually reaching a transmitting antenna.

F. The higher frequency or group of frequencies produced by an amplitude modulation process

G. Pi

H. Aerial

I. Movement of carriers in a semiconductor as voltage is applied.

J. A speaker enclosure.

CODE HELP…
http://www.w5yi.org/MorseCode.htm
http://www.universal-radio.com/catalog/videos/3375.html

Bob receiving his certificate of recognition at the annual Christmas dinner. His time as Coordinator, Teacher, and VE makes for a great member… Congratulations Bob…

Bob Byerley, KD6FZY looks over the goodies from the door prize drawing… HRO and our new President, KA6FDI, Ralph donated to the club… Thanks

M.O.M

Thousands of chearfull holiday people gathered in downtown Vacaville on Dec 3 for the annual lighting of the city's Christmas tree. Once again, amateur radio operators provided assistance by locating missing person's (only one this year) answering questions and keeping a watchful eye on things in general. Members of this year;s happy crew were: Ralph, KA6FDI; Bob, KD6FZY; Bob, K6HEW; Tom, KE6MDM; Dean, WA6NBU and Antoinio, N6ZGB

Holiday Party

Wednesday, December 11 was the date for this year's Holiday Party. Forty adults and quite a few children gathered for the feast at J.J. North's in Fairfield. Representatives from several Solano county Amateur Radio Clubs were in attendance.

Mike Szot, NI6V won the $179.00 prize fund that the Vaca Valley Radio Club had been accumulating through out the year. In addition, HRO and many guests donated door prizes that were given out to over two dozen lucky persons.

All in all, it was great event! Plans are being made to hold it again next year.

Power Divider/Power Splitter

A two - way power splitter to match two 50 ohm antennas to a 50 ohm transmission line is a quarter wave section of coaxial line that has a 35 ohm impedance. When you parallel two 50 ohm antennas the resultant is 25 ohms. To match this to a 50 ohm transmission line the quarter wavelength matching section has to have an impedance that is the geometric mean of the two impedances to be matched (25 and 50 ohms). The geometric mean is the square root of the product of the two impedances (25 and 50 ohms) or 35.36 ohms. The dimensions of the coaxial section is calculated by Zo = 138 Log D/d if the quarter wavelength section is made of round material. If it is a round tube inside a square outer conductor the equation is Zo = 138 Log (1.08 D/d). When a 'power splitter' as described above is used the feed line to the antennas can be any length as long as they are equal in length.

There's no "space age" wizardry to power splitters or any of the other basic building blocks we use in Ham Radio or Electronics in general. BTW, coaxial adapters are for the most part lossless and that loss unmeasurable (at least with the equipment that most Hams can afford) until they are used above 500 MHz.

Yes, two 50 ohm antennas can be matched in this manner. But, the 75 ohm lengths need to be 3/4 and 1/4 wavelengths at the band of operation, with the "T" between them. Sure you can build your own, Remember though, with this arrangement, to reverse one of the feeds on the driven element on the two antennas involved. The 3/4, 1/4 arrangement is to allow sufficient coax to allow the antennas to be spaced properly to provide the gain of using a pair of antennas rather than just one. Just like a four way splitter/combiner can be made out of a half wavelength of 50 ohm transmission line with a pair of coax connectors at each end and one in the middle of the half wavelength section.

W6OAL
Olde Antenna Lab of Denver
Dr. D.A. Clingerman, Sc.D. (CEO)

ATOMIC CLOCKS...

These devices are FCC Certificated under Part 15 rules as "periodic emitters." The ones I have look at transmit for about 50 milliseconds every 30 seconds or so. Most operate on 433.92 MHz, a European Industrial, Scientific and Medical band. To date, I have no reports of harmful interference to Amateur communications from these remote clocks and weather stations.

One fact that is not well understood amongst amateurs is that all amateur spectrum is shared with somebody. Part 15 devices can legally operate on any amateur frequency (and most non-amateur frequencies, too) at the various levels defined in the rules. They are unconditionally secondary to other radio services.

The whole matter then becomes one of actual harmful interference. If there is interference, the operator of the Part 15 device is required to correct the interference. Merely hearing a Part 15 signal in "our" bands, though, does not meet the standards of interference as defined in the rules. This is not necessarily a bad thing. On 70 cm, we are secondary to the government users; on 30 meters, we are secondary to commercial users. How would we feel if they said, "We can hear the hams on 'our' bands, so they gotta' get out?"

The periodic emitters are not to be confused with some of the data transmitters and video transmitters that also operate on 433 MHz. From what I have seen, these are NOT Certificated, nor could they be at the ranges the manufacturers claim.

For ARRL info on Part 15, see:

http://www.arrl.org/tis/info/part15.html

73,
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Sun	Mon	Tue	Wed	Thu	Fri	Sat
M2 Antenna Systems 4402 N. Selland Fresno, CA 93722 ph: (559) 432.8873 fax: (559) 432.3059			*1* *Straight Key night, ARRL*	*2*	*3*	*4*
5 *KIDS DAY,*	*6*	*7* *VVRC net 7:00 pm*	*8*	*9*	*10*	*11*
12	*13*	*14* *VVRC net 7:00 pm*	*15* *VVRC Meeting 7:30 pm*	*16*	*15*	*16*
19 *VHF Sweepstakes*	*20*	*21* *VVRC net 7:00 pm*	*22*	*23*	*24*	*25*
26	*27*	*28* *VVRC net 7:00 pm*	*29*	*30*	*31*	

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Classy Classifieds

For Sale: Kenwood TS-870S, a perfect 10, no scratches or dings. Original material and DRU-3 ($129.00) option for digital recording. Purchased new on 4/98. $1,550, obo. Contact KF6VBJ, Jim at JDooley@tcco.com

Visit the Repeater online courtesy of Bob K6HEW at:
http://users.cwnet.com/hewbob/vvrc
Club repeater in Vacaville:WD6BUS 145.470 MHz(-) pl 127.3
Additional local repeaters
WV6F 224.200(-) WV6F 440.025(+) WV6F 1291.900(-)

SUMMARY OF THE FINANCIAL REPORT
AS OF OCTOBER 9, 2002

GENERAL FUND	$ 749.61
REPEATER FUND	$ 247.18
PRIZE FUND	$ 163.00(10-9-02 drawing incl.)
TOTAL	$ 1,159.79

THE VVRC WELCOMES YOU

The Repeater is Published by the Vaca Valley Radio Club 419 Mason Street, Suite 126 Drawer 521 Vacaville CA 95688 An ARRL Affiliated Club. Founded 1987, Chartered 1988 General Meetings: 2nd Wednesday of each month at 7:30 PM 420 Vine Street Fire Station.

Wheelchair accessible

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ACTIVITIES
Clyde Hood, WH6AB 451-8996

SHORT SNORTS

2003 Starts out with a bang. If you didn't join in the Christmas dinner you missed a great group. Give a shot at joining us in the monthly meetings or presenting to us on your favorite topic… This is a great chance to give us the best scoop on your favorite part of the bands, antennas, or operations. We would love to hear from you… Remember the second Wednesday of each and every month. Well except December and July…

Just having taken over as editor, I will be asking you all to be those great reporters that you are and send me your articles, pictures and ham related items you would like to see in the paper… My job is to try and put it together so we all get to share in the wealth of great Amateurs that we are.

Merriment On Main, MOM, went off without a hitch and we thank all that jumped in and helped the city with that chore… Many other clubs were about and we know the community appreciated your efforts…

Bob, K6HEW is out and attending meetings representing us to the emergency community and I know others are helping him with simulation, and practice. Keep up your support for him…

Short announcement can always be email to me at w6omf@cwnet.com snail mail, or the telephone, 452-9701… Remember I'm the editor not a reporter… that's your job…

PLEASE RENEW YOUR MEMBERSHIP

VACA VALLEY RADIO CLUB, Inc.
2003 MEMBERSHIP APPLICATION/RENEWAL FORM

Please print & fill in completely Make checks payable to Vaca Valley Radio Club Dues are delinquent January 1st

Name:_____Call sign:_____ Member dues ($15.00) $_____

Street:_____ Associate dues ($15.00) $_____

City:_____ Zip:_____ Each additional family member...($2.00) $_____

Phone:(___)____-_____Phone OK in roster? Y____N? email address_____

Family member (Spouse or child)

Name:_____ Call sign:_____

License class:_____ ARRL member?_____ Repeater/Auto-patch donation $_____

Name:_____ Call sign:_____ Cloth Club patch ($6.00) $_____

License class:_____ ARRL member?_____ Name Badge……...($7.00) $_____

Name:_____ Call sign:_____

License class:_____ ARRL member?_____ **TOTAL…….$_____**

_____ FOR OFFICE USE_____

Date:_____ Renewal____ New member____ Paid by: Cash___ Check:#_____

Mail to: VACA VALLEY RADIO CLUB 419 Mason Street Suite 126 PMB 521 Vacaville, CA 95688